

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A ~~flexible hyperbranched dendron~~ polymer comprising:
 - a surface defined by the polymer;
 - a branched polyethyleneimine (B-PEI) core within the surface;
 - a plurality of primary amine groups at the surface; and
 - a plurality of secondary and tertiary amine groups positioned at the core;wherein the polymer is a flexible hyperbranched dendron polymer.
2. (Original) The polymer of claim 1, wherein the polymer has a molecular weight of greater than or equal to about 10 kD.
3. (Original) The polymer of claim 2, wherein the polymer has a molecular weight of less than or equal to about 25 kD.
4. (Original) The polymer of claim 3, wherein the polymer has a secondary to tertiary amine ratio of less than or equal to about 1.5 to 1.
5. (Original) The polymer of claim 4, wherein the polymer has a secondary to tertiary amine ratio of less than or equal to about 1.3 to 1.
6. (Original) The polymer of claim 4, wherein the polymer has a secondary to tertiary amine ratio of greater than about 1.0 to 1.
7. (Original) The polymer of claim 4, wherein the polymer has a secondary to tertiary amine ratio of greater than or equal to about 1.2 to 1.
8. (Original) The polymer of claim 1, wherein the polymer is made by a process comprising iterative attachment of ethyleneimine moieties to a branched polyethyleneimine core.

9. (Original) The polymer of claim 8, wherein the process increases the amount of secondary and tertiary amines in the polymer while maintaining a plurality of primary amines on the surface of the polymer.

10. (Currently Amended) The polymer of claim 8, wherein the process comprising iterative ~~attachement~~ attachment of ethyleneimine moieties to a branched polyethyleneimine core comprises:

- (a) reacting polyethyleneimine with chloroethyl amine;
- (b) reacting the modified polyethyleneimine of step (a) with chloroethyl amine; and
- (c) reacting the modified polyethyleneimine of step (b) with chloroethyl amine.

11. (Original) A hyperbranched dendron polymer having a randomly branched structure, a molecular weight of about 10 to 25 kD, and a ratio of secondary to tertiary amine groups of less than or equal to about 1.5 to 1.

12. (Original) The polymer of claim 11, wherein the ratio of secondary to tertiary amine groups is less than or equal to about 1.3 to 1.

13. (Original) The polymer of claim 12, wherein the ratio of secondary to tertiary amine groups is greater than or equal to about 1.2 to 1.

14. (Original) The polymer of claim 12, wherein the molecular weight is greater than or equal to about 12 kD.

15. (Original) The polymer of claim 12, wherein the molecular weight is less than or equal to about 15 kD.

16. (Original) The polymer of claim 11, wherein the polymer comprises:

- a surface defined by the polymer;
- a polyethyleneimine core within the surface;
- a plurality of primary amine groups at the surface; and
- a plurality of secondary and tertiary amine groups positioned at the core.

17. (Original) The polymer of claim 11, wherein the polymer is made by a process comprising iterative attachment of ethyleneimine moieties to a branched polyethyleneimine core.

18. (Original) The polymer of claim 17, wherein the process increases the amount of secondary and tertiary amines in the polymer while maintaining a plurality of primary amines on a surface of the polymer.

19. (Currently Amended) The polymer of claim 18, wherein the process comprising iterative ~~attachement~~ attachment of ethyleneimine moieties to a branched polyethyleneimine core comprises:

- (a) reacting polyethyleneimine with chloroethyl amine;
- (b) reacting the modified polyethyleneimine of step (a) with chloroethyl amine; and
- (c) reacting the modified polyethyleneimine of step (b) with chloroethyl amine.

20. (Original) A hyperbranched dendron polymer made by a process comprising iterative attachment of ethyleneimine moieties to a branched polyethyleneimine core, wherein the process increases the amount of secondary and tertiary amines in the polymer while maintaining a plurality of primary amines on a surface of the polymer.

21. (Currently Amended) The polymer of claim 20, wherein the process comprising iterative ~~attachement~~ attachment of ethyleneimine moieties to a branched polyethyleneimine core comprises:

- (a) reacting polyethyleneimine with chloroethyl amine;
- (b) reacting the modified polyethyleneimine of step (a) with chloroethyl amine; and
- (c) reacting the modified polyethyleneimine of step (b) with chloroethyl amine.

22. (Original) The polymer of claim 20, wherein the polymer has a molecular weight of greater than or equal to about 10 kD.

23. (Original) The polymer of claim 22, wherein the polymer has a molecular weight of less than or equal to about 25 kD.

24. (Original) The polymer of claim 23, wherein the polymer has a secondary to tertiary amine ratio of less than or equal to about 1.5 to 1.

25. (Original) The polymer of claim 24, wherein the polymer has a secondary to tertiary amine ratio of less than or equal to about 1.3 to 1.

26. (Original) The polymer of claim 24, wherein the polymer has a secondary to tertiary amine ratio of greater than about 1.0 to 1.

27. (Original) The polymer of claim 24, wherein the polymer has a secondary to tertiary amine ratio of greater than or equal to about 1.2 to 1.

28 to 77. (Canceled)

78. (New) The polymer of claim 1, wherein the polymer is polydisperse.

79. (New) The polymer of claim 11, wherein the polymer is a flexible hyperbranched dendron polymer.

80. (New) The polymer of claim 11, wherein the polymer is polydisperse.

81. (New) The polymer of claim 20, wherein the polymer is a flexible hyperbranched dendron polymer.

82. (New) The polymer of claim 20, wherein the polymer is polydisperse.